Please type a plus sign (+) inside this box

| | / | | | | 4 |
|----|---|-----|------|------|---|
| F] | Z | MAY | 0. 4 | 2004 | į |

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE to a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no pers Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

| Complete if Known | | | | |
|------------------------|------------------|--|--|--|
| Application Number | 10/051,237 | | | |
| Filing Date | January 18, 2002 | | | |
| First Named Inventor | Lyle Smith | | | |
| Group Art Unit | 2811 | | | |
| Examiner Name | Sara W. Crane | | | |
| Attorney Docket Number | LGHT 1054-0 | | | |

| | | <u> </u> | U.S. PATENT DOCU | MENTS | • |
|----------------------|--------------|---|---|--|--|
| Examiner Initials | Cite No.1 | U.S. Patent Document Kind Code ² (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| SUC | Al | RE 34363 | Freeman (deceased) | 08-31-1993 | |
| \mathcal{I} | A2 | 4,161,662 | Malcolm et al. | 07-17-1979 | |
| | A3 | 4,197,555 | Uehara et al | 04-08-1980 | |
| 7 | A4 | 4,568,961 | Noto | 02-04-1986 | |
| | A5 | 4,642,487 | Carter | 02-10-1987 | |
| | A6 | 4,682,201 | Lipp | 07-21-1987 | |
| | A7 | 4,745,084 | Rowson et al. | 05-17-1988 | • |
| | A8 | 4,748,494 | Yamada et al. | 05-31-1988 | |
| | A9 | 4,851,892 | Anderson et al. | 07-25-1989 | · |
| | A10 | 4,870,302 | Freeman | 09-26-1989 | |
| | All | 4,873,459 | El Gamal et al. | 10-10-1989 | |
| | A12 | 4,875,971 | Orbach et al. | 10-24-1989 | · · · · · · · · · · · · · · · · · · · |
| | A13 | 4,943,841 | Yahara | 07-24-1990 | <u> </u> |
| | A14 | 5,016,080 | Gianella | 05-14-1991 | • |
| | A15 | . 5,023,701 | Sharpe-Geisler | 06-11-1991 | |
| | A16 | 5,049,969 | Orbach et al. | 09-17-1991 | |
| | A17 | 5,073,729 | Greene et al. | 12-17-1991 | |
| | A18 | 5,084,404 | Sharpe-Geisler | 01-28-1992 | |
| 7 | A19 | 5,087,589 | Chapman et al. | 02-11-1992 | |
| SWL | A20 | 5,172,014 | El Ayat et al. | 12-15-1992 | |

| | | | | FOR | EIGN PATENT DOCUMENT | S | • | |
|----------------------|------|----|----------------------|--------------------------------------|-----------------------------|------------------------------|--|----------------------|
| F | 011- | | Foreign Patent Docur | ment 17 | Name of Patentee or | Date of Publication of | Pages, Columns, Lines, Where Relevant | |
| Examiner Initials | | | | Kind Code ⁵ (if known) | Applicant of Cited Document | Cited Document MM-DD-YYYY | Passages or Relevant Figures Appear | TB |
| SW | _B1 | DE | 3408747 | | RCA Corp. | 09-27-1984 | | |
| 79 | B2 . | DD | 000279387 | | VEB ZFT Mikroeltrn | 06-06-1990 | | |
| 7 | B3 | EP | 0408060 | | Hitachi. Ltd. | 01-16-1991 | | |
| | B4 | EP | 0681329 | | Quick Technologies, Ltd | 11-08-1995 | | |
| \Box | B5 | JP | 7211767 | | Nippon Denshin Denwa | 12-25-1982 | (Abstract only) | \mathbb{L}_{\perp} |
| | B6 | JP | 1266742 | | Seiko Epson Corp. | 10-24-1989 | | |
| | B7 | JP | 3283663 | | NEC Corp. | 12-13-1991 | • | |
| | B8 | JР | 4152567 | | Mitsubishi Elec. Corp. | 05-26-1992 | | |
| | B9 | JР | 6077427 | | Sunao Shibata | 03-18-1994 | (Abstract only) | |
| SW7 | B10 | wo | 93/10561 | | VLSI Technology, Inc. | 05-27-1993 | | |

| | | | · · · · · · · · · · · · · · · · · · · |
|-----------|--------|----------------|---------------------------------------|
| Examiner | | [Date] | |
| Signature | CRANC | Considered | 7/24/11 |
| Signature | 017106 | Considered | <u> </u> |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

| Please type a plus sign (+) inside this box -> | + |
|--|------|
| Under the Panerwork Reduction Act of 1995, r | 10 D |

PTO/SB/08A (08-00)
Approved for use through 10/31/2002, OMB 0551-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE response a collection of information unless it contains a valid OMB control number.

| Substitute | for | form | 1449A/PTO |
|------------|-----|--------|-----------|
| 0003111010 | | 101111 | 144041 10 |

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of 3 2

| Complete if Known | | | | |
|------------------------|------------------|--|--|--|
| Application Number | 10/051,237 | | | |
| Filing Date | January 18, 2002 | | | |
| First Named Inventor | Lyle Smith | | | |
| Group Art Unit | 2811 | | | |
| Examiner Name | Sara W. Crane | | | |
| Attorney Docket Number | LGHT 1054-0 | | | |

| | • | • | U.S. PATENT DOC | JMENTS | |
|----------------------|--------------|---|---|--|--|
| Examiner Initials | Cite No.1 | U.S. Patent Document Kind Code ² Number (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| 5W(| A21 | 5,206,184 | Allen et al. | 04-27-1993 | |
| | A22 | 5;309,015 | Kuwata et al. | 05-03-1994 | · " |
| | A23 | 5,338,970 | Boyle et al. | 08-16-1994 | |
| | A24 | 5,404,033 | Wong et al. | 04-04-1995 | |
| | A25 | 5,506,162 | Hirose et al. | 04-09-1996 | |
| | A26 | 5,565,758 | Yoeli et al. | 10-15-1996 | |
| | A27 | 5,619,062 | Janai et al. | 04-08-1997 | |
| | A28 | 5,679,967 | . Janai et al. | 10-21-1997 | |
| | A29 | 5,847,420 | Kuge et al. | 12-08-1998 | |
| SWI | A30 | 5,861,641 | · Yoeli et al. | 01-19-1999 | |
| | A31 | | | | |
| | A32 | | | | |
| | A33 | | • | | |
| | A34 | | | •• | |
| | A35 | | | • | |
| | A36 | | | • | |
| | A37 | | | | |
| | A38 | | | | |
| | A39 | | | | •• |
| | A40 | | | | |

| | | | | FORE | IGN PATENT DOCUMEN | TS | | |
|-----------------------|--------------|---------------------|---------------------|--------------------------------------|-----------------------------|------------------------------|--|----|
| | | F | oreign Patent Do | cument | Name of Patentee or | Date of Publication of | Pages, Columns, Lines, | |
| Examiner Initials* | Cite No.1 | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | Applicant of Cited Document | Cited Document MM-DD-YYYY | Where Relevant Passages or Relevant Figures Appear | T6 |
| | B11 | | | | | | | |
| | B12 | 1 | | | | | | П |
| | B13 | | | | • | | | Τ |
| | B14 | | | | | | | T |
| | B15 | | · | | | | • | I |
| | B16 | | | | | | | |
| | B17 | | | | | | | |
| | B18 | | | | | | | |
| | ·B19 | | | | | | | |
| | B20 | | | | | | | 7 |

| Examiner Signature | CRANE | Date Considered | 7/24/04 |
|-----------------------|-------|--------------------|---------|

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

| | | us sign (+) inside this work Reduction Act | ٠ ـ | HAY 0 4 20 | D. S. Patent and Traden | PTO/SB/08B (08-00) ved for use through 10/31/2002. OMB 0651-0031 nark Office: U.S. DEPARTMENT OF COMMERCE on unless it contains a valid OMB control number. | + |
|-----------------------------------|----------|---|-------|------------|-------------------------|---|---|
| | Substitu | ite for form 1449B/P | го | RADEMAR | off. Co | omplete if Known | 1 |
| ı | | | | | Application Number | 10/051,237 | 1 |
| - | INF | ORMATIO | N DIS | CLOSURE | Filing Date | January 18, 2002 | 1 |
| -1 | STA | TEMENT | BY A | PPLICANT | First Named Inventor | Lyle Smith | I |
| i | • • • • | | | | Group Art Unit | 2811 | Ī |
| (use as many sheets as necessary) | | | | | Examiner Name | Sara W. Crane | Ī |
| | Sheet | 2 | of | 3 | Attorney Docket Number | I GHT 1054 0 | Ţ |

1010

| Examiner nitials* · | Cite No.1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | Τ, |
|------------------------|--------------|---|----|
| SWL | C1 | Greg Semeraro, David H. Albonesi, Steven G. Dropsho, Grigorios Magklis, Sandhya Dwarkadas, Michael L. Scott, "Dynamic Frequency and Voltage Control for a Multiple Clock Domain Microarchitecture," IEEE Computer Society, pp. 62-68 (November-December 2003) | |
| | | | |
| | i i | | |
| | | · | |
| | | | |
| | | | |
| | | | |
| | | | |
| • | | | |
| | | | |
| | | | - |
| | | | |
| | | | _ |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Signature

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Considered

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.